Academic Education Programs sponsored by the Ministry of Commerce PRC

Huazhong University of Science and Technology

2024 Master Program in Information and Communication Engineering

Application Guide

Content

2024

1. Program Introduction

1.1 Brief Introduction:

Degree Education Programs sponsored by the Ministry of Commerce of People's Republic of China is designed to foster high-end business officials and managerial personnel for the recipient countries, offering one-year and two-year master programs as well as three-year doctoral programs for the purpose of educating high-end and inter-disciplinary talent working in the applied fields of government, trade, foreign affairs, agriculture, technology, education, culture and health, building intellectual capacity and facilitating the economic and social development of the recipient countries. These programs provide assistance to governmental officials, research fellows, and senior managerial personnel on their master and doctor education in China, which are fully conducted in English. Admission requirements include a bachelor's degree, relevant working experiences, and decent physical conditions, essential for the high-compact curriculum needed for the degrees. The programs are playing a more and more important role in stimulating economic cooperation between China and students' home countries, which the host governments are attaching great attention to this program.

The master program in Information and Communication Engineering, undertaken by the School of Electronic Information and Communications (EIC), Huazhong University of Science and Technology (HUST), will not only accelerate the process of informatization and serve as a propeller for the informatization and infrastructure of developing countries, but also provide a platform to connect developing countries and China. It is bound to lay a solid foundation for cooperation and friendship among different countries.

1.2 Prospective Students:

Our prospective students are mid-to-senior level officials, university professors, and business management personnel who are engaged in research and system management related to information and communication industry, demonstrate superior performance both academically and practically.

1.3 Program Objective:

To prepare high-caliber and interdisciplinary talents in the field of information and communication.

1.4 Enrollment Plan:

In 2024, HUST plans to enroll up to 45 students in this master's program. This master's program is a two-year program. The language of instruction is English. Students should comply with Chinese laws and the university's regulation and requirements during study.

1.5 Financial Aid:

a) Students are exempt from tuition fee, teaching material fee, research and survey fee, allowance of English-taught program, dissertation guidance fee;

b) Free on-campus accommodation;

c) Monthly stipend: 36000RMB per year per master student;

d) One-off resettlement fee: 3000RMB per person;

e) Free medical insurance for international students;

f) One-time round-trip international airfare for all the students (First time fly to China after enrollment, and Fly back to home country while graduation), and one-time round-trip international airfares for home visits;

g) The annual review is compulsory for all students. Those who pass the review may continue to enjoy full scholarships in the next year;

h) Other expenses shall be managed and used by the Ministry of Commerce or the universities as a whole, and shall not be distributed to students. The Ministry of Commerce only provides students with financial assistance within their enrolled academic duration. Students who postpone their graduation will not receive the continuing sponsorship.

2. University Introduction

2.1 Huazhong University of Science and Technology:

Huazhong University of Science and Technology (HUST) is a comprehensive research university located in Wuhan, China under the direct supervision of the Ministry of Education. It is a participant university of the former "985" Project in China, and also one of the first universities approved under the national "Double First-Class" Initiative, China's "Excellence Initiative" for institutions of higher education.

HUST has consistently ranked among the top 10 universities in China in the major domestic and international rankings, including the Shanghai Ranking's Academic Ranking of World Universities and US News and World Report Best Global Universities Ranking.

HUST is comprised of its main campus close by picturesque East Lake and a satellite medical campus located in the central business district of Hankou across the Yangtze River. Today the university has more than 3,400 full-time teachers, including over 1,200 professors, serving approximately 55,000 full-time students. Complementing this rich academic environment is HUST's remarkable greenscape – covering 72% of the campus, its rich canopy of trees explains why many people now refer to it as the "university in the forest."

HUST boasts a full range of academic disciplines, comprising 10 major categories that range from engineering and medicine --HUST's two most notable pillars of strength – to its fast-growing science and distinctive liberal arts disciplines. Guided by its sense of mission to contribute to social progress and the greater global community, the university continues to explore the frontiers of science, and is the only university in China that includes four national research facilities. International cooperation also lies at the core of HUST development strategy.

2.2 School of Electronic Information and Communications:

The School of Electronic Information and Communications (EIC) was founded in 1960 as the Department of Radio Engineering of Huazhong Institute of Technology, and was later renamed the Department of Electronics and Information Engineering of the former Huazhong University of Science and Technology. After the merger in May 2000, it

became the Department of Electronics and Information Engineering of Huazhong University of Science and Technology (HUST). In November 2014, it was changed to the present name, School of Electronic Information and Communications. EIC possesses great strength in teaching and scientific research, boasting two first-level disciplines (Information and Communication Engineering and Electronic Science and Technology) and postdoctoral research stations with the same names. EIC is among the first group approved to confer doctoral degrees. It is qualified to confer doctoral and master's degrees in Communication and Information System, Signal and Information Processing, Circuits and Systems, and Electromagnetic Field and Microwave. Communication and Information System, the second-level discipline, is a national key fostering discipline. Information and Communication Engineering and Electronic Science and Technology are both the first-level key disciplines in Hubei Province.

There are 158 faculty members in EIC. Of them, there are 117 full-time teachers, including 37 professors and 56 associate professors. A number of famous scholars in China and abroad were invited by EIC as part-time professors or consultant professors, including Zhu Zhongliang, academician of Chinese Academy of Sciences, Zhong Shan and Zhao Zisen, both are academicians of Chinese Academy of Engineering, and Professor Zhang Kezhao from Iowa State University.

International collaboration programs and international student education are also the highlights of EIC education. EIC works in collaboration with the University of Birmingham of the United Kingdom, the Arizona State University of the U.S. and the University of Wollongong of Australia to co-establish China-Britain class, China-US class, China-Australia class, etc (with varying academic-year lengths, such as 2+2, 3+1). Two universities cultivate students jointly, and credits are recognized by two universities. In the national first-level discipline ranking of 2012, the index of "student international exchange" of EIC ranked first. In addition, EIC is the first school in HUST to set up undergraduate, graduate and doctoral programs for international students, in which all classes are taught in English. So far, EIC has cultivated more than 1000 international

students.

EIC has also established good training cooperation with many domestic and international communication and IT enterprises, which has gathered rich training resources for the high-quality implementation of the education programs.

2.3 Campus Life:

HUST is located in Wuhan, the capital of Hubei Province. Wuhan is a subtropical monsoonal humid climate area with abundant rainfall and sufficient sunshine, it has four distinct seasons in mid-latitudes zone. Wuhan is in the middle of P. R. China with convenient transportation and reasonable price level, and it is also one of the ideal livable cities in China. It has convenient living conditions with high-level facilities. A variety of sports stadiums, libraries, supermarkets, banks, school clinics and other supporting facilities are fully equipped to meet the daily learning and living needs of students.

HUST provides single room equipped with washing room, air-condition, network for students in this program. There are more than 200 single rooms available for international students. The university has 35 student canteens, including several halal canteens. After years of undertaking foreign-aid training programs, HUST has formed a complete teaching and living service support system through the integration of social resources, which can also provide various aspects of support to this foreign-aid master training program.

3. Education Plan

3.1 Course Arrangement

The training on skills of scientific research runs through the whole program. Scientific research is started when students enter school, along with courses study and project practice.

The Master program is Credit based. The program requires a total of minimum of 39 credits, which include a minimum of 24 credits for degree courses and 15 research credits.

The list of the compulsory courses, elective courses, semester, and credits for each course are shown in Table.

3.1.1 General Courses (≥7 credits)

Course Name	Course Description	Credits
Chinese Language	This course aims to cultivate students' basic knowledge and skills of Chinese. Based on the text in the textbook, explain the relevant vocabulary, sentence pattern and grammatical structure; carry out oral and written exercises, and carry out writing exercises appropriately.	4
A Survey of China	This course comprehensively introduces China's history and natural conditions, China's political system, economic development and the current situation of China's society. It is a basic course to help students deeply learn and understand Chinese language and culture.	2
Orientation Course for International Students	The course content includes Chinese laws and regulations, student registration, dormitory management regulations scholarship, etc.	1

3.1.2 Compulsory Courses（≥17 credits）

Course Name	Course Description	Credits
Internet Applications	In this course, the students will learn about the state-of-art Internet applications on content delivery and distribution. The basic technologies of video coding, web system, proxy caching, content delivery network, mobile caching, cloud storage will be illustrated in details, as well as the cases discussion on the online streaming, and the e-learning applications.	2

Electronic Commerce	This course will introduce the basic concepts of electronic commerce to students, help them knowing about its developing history in China and worldwide, grasping the scientific ways of analyzing electronic commerce's business model, and fostering the students' ability to analyzing examples. Furthermore, we will set specific and hierarchical experiments which will enable them to construct basic cognition about the key technology of electronic commerce's application domain. In the end, the course will foster their innovation thinking, encouraging them to think independently, analyze independently, and innovate independently. The experiments are as follows: a) The concepts and development history of electronic commerce. b) Example analyzing of Alibaba c) Example analyzing of Amazon. d) Business models e) Documentary discussing of The Internet Age	2
IT Project Management	In this course, the students will be guided to complete an IT project to help understand the whole process of IT project management from start to the end, including the principle of the project life cycle, the team establishment and management, quality management, incentive theory, and some solutions to cost and time estimation, risk assessment, conflict resolution and some other specific issues. Finally, the students are required to master the practical experience of avoiding the problems happened in the project and the ability of project management.	2
Artificial Intelligence	Overview of artificial intelligence; basic motivations, core ideas, classical algorithms, and representative applications of topics such as scheme search, unsupervised learning, knowledge engineering;	2

	implementation of algorithms based on python.	
Network and Information Security	Key points: network and information security concepts; the OSI security architecture; security attacks; security services; security mechanisms; network access security models; classical encryption techniques; block ciphers and the data encryption standard; public-key cryptography and RSA; key management and distribution; user authentication protocols; transport level security; wireless network security; the development trend of network and information security technology.	2
Mobile Communication System	Basic principle and composition, key technology of the mobile communication system, main communication system architecture and current implementation mode; development history and present situation of the communication system; basic theory and key technology of communication system design; the latest development direction of the mobile communication system.	2
Computer Network	Key points: technical issues, basic principles, common protocols, and some advanced technologies of computer networks, including hierarchical architecture, packet switching, network interconnection, convergence with telecom networks, internet for business, the impact of media, and the technical challenges posed by its application in these areas.	2
Academic Ethics and Writing	Paper is the major media to record and share scientific and technical research results. Every postgraduate student in the major of engineering should grasp the basic knowledge and skills of	1

	scientific writing. This course covers the overview of various kinds of academic literature, basic elements of technical paper, design of title, survey of the related literature, citation rules, expression of experiment results, writing rules of graduate thesis, and etc. This course will be helpful to improve the student ability in academic writing, which will further support his technical him to submit technical paper and degree thesis.	
Next-generation Wireless Network Technologies	After course learning, students should know the recent development of wireless communications and networking technologies, and grasp the principles of wireless communication networks, including the fading characteristics of wireless channels, how to use diversity techniques to combat the channel fading, and multiple-access techniques. Moreover, students will get to know about the evolution and key techniques of two representative wireless communication systems, mobile cellular networks and Wi-Fi networks, the recent development, and future trends and application fields of next-generation mobile communication systems. With these fundamentals, the students are expected to have a big picture of the wireless communication systems and gain vision on the development of future 5G/6G systems.	2

3.1.3 Research（≥15 credits）

Course Name	Credits
Engineering Practice	2
Proposal	1
Mid-term Report	1
Participate in academic conferences or present	1

academic paper at the conference	
Dissertation	10

3.1.4 Faculty

This program is equipped with a high-quality and professional teaching team, consisting of 11 teachers:

Liu Wei, Professor and Doctoral Supervisor of Huazhong University of Science and Technology, and Head of the Engineering Teaching Base for Overseas Students from Huazhong University of Science and Technology;

Xiao Yong, PhD, Professor, Doctoral Supervisor;

Ge Xiaohu, PhD, Professor, Doctoral Supervisor;

Yu Li, PhD, Professor, Doctoral Supervisor;

Wang Bang, PhD, Professor, Doctoral Supervisor;

Chen Jingwen, PhD, Associate Professor;

Xu Wei, PhD, Associate Professor;

Xu Jing, PhD, Associate Professor;

Hu Menglan, PhD, Associate Professor;

Yang Peng, PhD, Associate Professor;

Xu Wenbo, Ph.D., is currently a postdoctoral fellow at Huazhong University of Science and Technology, Executive Secretary of the Engineering Teaching Base of Huazhong University of Science and Technology for International Studies in China, and Student Coordinator of the Degree Education Programs sponsored by the Ministry of Commerce of People's Republic of China.

3.2 Teaching Methods

Classes will incorporate a mix of lectures, seminars, case discussions, practice training, and on-spot study.

3.3 Semester Arrangement

Beside the course study, students should enter the research stage as early as possible after enrollment, review the literature under the guidance of the supervisor, write the literature review report, study the topic and

select the topic of the dissertation.

3.4 Dissertation

a) The innovative achievements used for the application of master's degree should be completed independently by the degree candidate, during his/her degree studies. The dissertation is the main criteria for the degree evaluation.

b) The topic of the dissertation should be a basic or applied research topic in the relevant research direction of the discipline, with great theoretical significance or application value, and with important academic significance or application value for the development of the discipline or the national demand.

c) The content of the dissertation shall reflect that the applicant has solid basic theories and systematic expertise in the discipline of information and communication engineering, and has extensive understanding of the frontier dynamics and development trend of the research field. The dissertation should have the author's own creative thinking and the main research results should be innovative.

d) The thesis should be systematic and complete, with clear expression, rigorous argumentation, accurate and comprehensive citations. The thesis should follow the academic writing format and rules.

e) Master students can present their innovative achievements in the forms of journal papers, conference papers, monographs, patents, software copyrights, patents, and other forms (hereinafter collectively referred to as relevant academic achievements). The relevant academic achievements can be used as an important reference to evaluate the thesis level.

3.5 Confer Degree

For the candidate who has completed this program and passed the degree defense, if his application is checked and approved by the school committee of academic degree, he will be allowed for graduation. For the candidate who has satisfied the requirement of master's degree, if his application is checked and approved by the Academic Degree Evaluation

Committee of the university, he will be awarded the master's degree.

4. Application Procedures

4.1 Eligibility:

To be eligible, applicants must:

a) Be in compliance with the laws and regulations of the People's Republic of China (PRC) and the university regulations, and respect Chinese customs and habits;

b) Be a citizen of a developing country other than the People's Republic of China, and under the age of 45 (born after September 1, 1978);

c) Be healthy physically and mentally with a physical examination report issued by a local public hospital, and not having any disease or situation listed below: Diseases prohibited by Chinese Entry-Exit Inspection and Quarantine Laws and Regulations; Other severe chronic diseases like high blood pressure, cardio-cerebrovascular disease, diabetes; psychological diseases; or other infectious diseases which may harm public health; In recovery period after major surgery or acute disease attacks; Severe physically challenged; Pregnancy;

d) With at least three years' working experience, and be a bachelor's degree holder when applying for this program;

e) Be sufficient in English skill to meet the academic requirements of the program, be equivalent to IELTS 6.0 or TOEFL 80 and above level;

f) Be with the potential of professional development, and is committed to promoting the friendly exchanges and cooperation between the host country and China;

g) Be neither studying in China nor being admitted to other scholarship programs provided by Chinese government.

h) Only applicants recommended by the Economic and Commercial Counselor's Office of Chinese Embassy in the country that accords with the candidate's nationality will be considered.

4.2 Application Online:

4.2.1 Application to HUST

Please visit the online application system of HUST at (http://admission.hust.edu.cn), and register for an account. Fill in all the required information and upload all the required documents and submit your application. After your application is completed, you will have an application number (11 digits) like "202XXXXXXXX", please print this HUST application form for submission. **Please note the following information:**

a) Type of Programs: **Master Programs**;

b) Program: **Information and Communication Engineering（MPA）**;

c) Department: **School of Electronic Information and Communications**.

4.3 Application Documents (written in Chinese or English) :

a) Recommendation letter from current employer：It should be issued by the department where the applicant is working in. It should cover the basic information of the applicants and the intension to recommend the applicant.

b) Recommendation letter from academic perspective：It should be issued by vice professors or professors. It should cover the academic background, research field, past achievements and research ability of the applicant.

c) Highest diploma：Graduation and Degree Certificates must be originals or the notarized copies, in Chinese or English; If the applicant has not graduated yet, he or she should provide a letter issued by the school to state the graduation date.

d) Academic transcripts：Official transcripts must be originals or notarized copies in Chinese or English; Transcripts must cover all the courses studied and final standards achieved.

e) CV: Written in English. It should cover the personal background information and the applicant's experience of study and work after the high school.

f) Personal statement: Written in English. It should cover the applicant's ideas and objectives for studying the major applied.

g) A Study Plan or Research Proposal: Written in English; It should cover the applicant's learning and research tasks that he/she wishes to accomplish during their study in China.

h) Passport: The passport must be valid; Do not use the Diplomatic passport or Service passport; The passport used to apply must be the same with passport used for entry into China and registration in HUST.

i) English proficiency: Non-native English speakers or those who did not participate English-taught Bachelor Program should submit English proficiency certificate like TOEFL, IELTS etc.

j) Photos: 2 photos (the last 3 months) in passport photo size; White background and bareheaded;

k) Physical Examination Form: The health form shall be issued within one month before the submission of application, showing that the applicant carries no infectious diseases which may have a serious impact on public health or fall into any of the health situations prohibited by China's Entry-Exit Inspection and Quarantine Laws and Regulations.

l) Non- criminal record report: The applicant shall submit a valid certificate of Non-Criminal Record issued by the local public security authority, usually issued within 6 months prior to the submission date of the application.

4.4 Submission Offline:

a) The applicants shall obtain the approval and recommendation from the relevant department of host country before applying for this scholarship. Afterwards, the applicants could submit application according to the requirements of above department.

b) For the applicants whose host government allows them to submit the application directly to the Embassy of China, please obtain the permission or recommendation letter from the host government which states that the applicant has been approved to study in

China, and submit the original documents of the letter and other above mentioned application documents to the ECCO of Chinese Embassy in the host country. The scanned electronic edition of the documents is needed as well. For emails and addresses of the Economic and Commercial Counsellor's Offices, please visit http://www.china-aibo.cn.

c) The responsible department of the host government shall submit a written request to the ECCO of Chinese Embassy for an official recommendation letter and clearly state:
- Whether the applicant is willing to be considered for a similar program at other universities if the applied programs could not accept the applicant.
- Other special requests if any.

Important Reminders:
a) All the documents to be submitted should be in Chinese or English. Otherwise, a notarized copy in Chinese or English is required.
b) An original copy of degrees, transcripts, Foreigner Physical Examination Form and language certificates must be presented for on-site verification.
c) Applicants will get back all the hard-copy materials, both original copies and photocopies from the ECCO of Chinese Embassy. If admitted, students must take the documents to China and submit them to HUST.

5. Deadline of Application: June 7th, 2024

6. Notes:

6.1 Contact:

Contact person:

Mr. Isaac   apply@hust.edu.cn

Telephone: 0086-27-87542457

Website: http://iso.hust.edu.cn/

Address: Admission Office, School of International Education, #1037

Luoyu Road, Hongshan District, Wuhan 430074, P. R. China

6.2 Important Statements:

a) None of the materials submitted to HUST will be returned.

b) No explanation on the result regardless of acceptance.

c) Bringing spouse or other dependent for accompanying is not allowed during the students' study in China. The scholarship will not provide any related cost;

d) The procedures of coming to China and its related requirements will be explained in the admission package.